Author Index to Volume 149

Aechtner, P. and A. Laubereau, Vibrational dephasing of liquid carbondisulfide investi-	
gated by picosecond CARS	149 (1991) 419
Antonetti, A., see Y. Gauduel	149 (1990) 1
Bacchus-Montabonel, M.C. and M. Druetta, Ab initio molecular treatment for single and	
double electron capture in the $He^{2+} + He(1s^2)$ collision	149 (1991) 333
Ballantine, J.A., see M.L. Langford	149 (1991) 445
Barbara, P.F., see T.J. Kang	149 (1990) 81
Barrat, JL., JN. Roux and JP. Hansen, Diffusion, viscosity and structural slowing down	
in soft sphere alloys near the kinetic glass transition	149 (1990) 197
Billing, G.D., see G. Jolicard	149 (1991) 261
Börjesson, L., M. Elmroth and L.M. Torell, Neutron and light scattering study of relaxa-	
tion dynamics in a glass-forming fragile molecular liquid	149 (1990) 209
Brooks, J.T. and M.E. Cates, Phase equilibria of polymer-containing droplet microemulsions	149 (1990) 97
Bruna, P.J. and S.D. Peyerimhoff, Ab initio study of the cyclic, bridge-bonded and ter-	
minal-bonded isomers of P ₄ S	149 (1991) 325
Bunker, P.R., see A. Karpfen	149 (1991) 299
Butz, T., Th. Völkel and O. Nuyken, Nuclear quadrupole interaction of 199mHg mercaptides	149 (1991) 437
Cates, M.E., see J.T. Brooks	149 (1990) 97
Chandler, D., see M.A. Wilson	149 (1990) 11
Chen, SH., see XH. Guo	149 (1990) 129
Curro, J.G., see K.S. Schweizer	149 (1990) 105
Dargelos, A., see A. Márquez	149 (1991) 311
Dargelos, A., see M. Gelizé	149 (1991) 319
Dashevskaya, E.I., R. Düren and E.E. Nikitin, Semiclassical roronic description of right-	
left scattering asymmetry of helicopter-oriented atoms	149 (1991) 341
Davis, H.T., see W.C. Kung	149 (1990) 141
De Schryver, F.C., see B. Verschuere	149 (1991) 385
Dijkhuis, B., see T.C.M. Horn	149 (1991) 275
Druetta, M., see M.C. Bacchus-Montabonel	149 (1991) 333
Düren, R., see E.I. Dashevskaya	149 (1991) 341
Elmroth, M., see L. Börjesson	149 (1990) 209
Fernández Sanz, J., see A. Márquez	149 (1991) 311
Fernández Sanz, J., see M. Gelizé	149 (1991) 319
Fillaux, F., H. Ouboumour, J. Tomkinson and L.T. Yu, An inelastic neutron scattering study	
of the proton dynamics in γ-MnO ₂	149 (1991) 459
Fonseca, T., see T.J. Kang	149 (1990) 81

Freiberg, A., see T. Pullerits	149 (1991) 409
Fuchs, M., W. Götze and A. Latz, Some comments on the α-relaxation dynamics of supercooled CaKNO ₃	149 (1990) 185
Gauduel, Y., S. Pommeret, A. Migus and A. Antonetti, Some evidence of ultrafast H ₂ O ⁺ -	
water molecule reaction in femtosecond photoionization of pure liquid water: influence	
on geminate pair recombination dynamics	149 (1990) 1
Gelizé, M., see A. Márquez	149 (1991) 311
Gelizé, M., A. Dargelos, A. Márquez and J. Fernández Sanz, Ab initio calculations of mo- lecular and electronic structure of disilane. II. Photoelectron and vacuum UV electronic	
spectra	149 (1991) 319
Goates, S.R., see S.M. Silence	149 (1990) 233
Götze, W., see M. Fuchs	149 (1990) 185
Guo, XH. and SH. Chen, The structure and thermodynamics of protein-SDS complexes	140 (1000) 120
in solution and the mechanism of their transports in gel electrophoresis process	149 (1990) 129
Hansen, JP., see JL. Barrat	149 (1990) 197
Hansson, Ö., see B. Källebring	149 (1991) 361
Harris, C.B., see M.E. Paige	149 (1990) 37
Harris, F.M., see M.L. Langford	149 (1991) 445
Harris, J.G. and F.H. Stillinger, Fundamental aspects of chemical kinetics in condensed phases	149 (1990) 63
Heitzsch, O. and W. Lorenz, Quantum simulation of non-separable vibrations and Franck-	117 (1770) 03
Condon overlap: ground state and low excited states	149 (1991) 353
Horn, T.C.M., A.W. Kleyn and B. Dijkhuis, Catastrophes and classical surface scattering	149 (1991) 275
Huston, A.L. and C.T. Reimann, Photochemical bleaching of adsorbed rhodamine 6G as	()
a probe of binding geometries on a fused silica surface	149 (1991) 401
Inokuchi, H., see E.A. Silinsh	149 (1991) 373
Jarzeba, W., see T.J. Kang	149 (1990) 81
Jensen, P., see A. Karpfen	149 (1991) 299
Johari, G.P., see E. Muzeau	149 (1990) 173
Jolicard, G. and G.D. Billing, Energy dependence study of vibrational inelastic collisions	
using the wave operator theory and an analysis of quantum flows in momentum space	149 (1991) 261
Jonas, J., see G. Liu	149 (1990) 165
Källebring, B. and Ö. Hansson, A theoretical study of the effect of charge recombination	
on the transfer and trapping of excitation energy in photosynthesis	149 (1991) 361
Kang, T.J., W. Jarzeba, P.F. Barbara and T. Fonseca, A photodynamical model for the ex-	
cited state electron transfer of bianthryl and related molecules	149 (1990) 81
Karpfen, A., P.R. Bunker and P. Jensen, An ab initio study of the hydrogen chloride dimer:	
the potential energy surface and the characterization of the stationary points	149 (1991) 299
Kleyn, A.W., see T.C.M. Horn	149 (1991) 275
Kung, W.C., L.E. Scriven and H.T. Davis, Wetting transitions and surface critical phe-	
nomena at solid-fluid interfaces	149 (1990) 141

Langford, M.L., F.M. Harris, C.J. Reid, J.A. Ballantine and D.E. Parry, Triplet-state en-	
ergy levels of CO_2^{2+} , COS^{2+} and CS_2^{2+}	149 (1991) 445
Latz, A., see M. Fuchs	149 (1990) 185
Laubereau, A., see P. Aechtner	149 (1991) 419
Li, Y., see G. Liu	149 (1990) 165
Liu, G., M. Mackowiak, Y. Li and J. Jonas, NMR deuteron relaxation study of low-di-	
mensional effects in molecular liquids in restricted geometries	149 (1990) 165
Lorenz, W., see O. Heitzsch	149 (1991) 353
Mackowiak, M., see G. Liu	149 (1990) 165
Markel, F., see A.B. Myers	149 (1990) 21
Márquez, A., J. Fernández Sanz, M. Gelizé and A. Dargelos, Ab initio calculations of mo- lecular and electronic structure of disilane. I. Molecular force field and vibrational	
spectrum	149 (1991) 311
Márquez, A., see M. Gelizé	149 (1991) 319
Migus, A., see Y. Gauduel	149 (1990) 1
Muzeau, E. and G.P. Johari, The mechanical spectra of β-relaxation and spontaneous den-	
sification effects in an amorphous polymer	149 (1990) 173
Myers, A.B. and F. Markel, Vibrational dephasing and frequency shifts for highly excited	
vibrations of methyl iodide in solution	149 (1990) 21
Nelson, K.A., see S.M. Silence	149 (1990) 233
Nikitin, E.E., see E.I. Dashevskaya	149 (1991) 341
Nuyken, O., see T. Butz	149 (1991) 437
Ouboumour, H., see F. Fillaux	149 (1991) 459
Paige, M.E. and C.B. Harris, Ultrafast studies of chemical reactions in liquids: validity of	
gas phase vibrational relaxation models and density dependence of bound electronic	
state lifetimes	149 (1990) 37
Parry, D.E., see M.L. Langford	149 (1991) 445
Petrov, A.K., see A.B. Vakhtin	149 (1991) 427
Peyerimhoff, S.D., see P.J. Bruna	149 (1991) 325
Pommeret, S., see Y. Gauduel	149 (1990) 1
Pullerits, T. and A. Freiberg, Picosecond fluorescence of simple photosynthetic mem-	
branes: evidence of spectral inhomogeneity and directed energy transfer	149 (1991) 409
Reid, C.J., see M.L. Langford	149 (1991) 445
Reimann, C.T., see A.L. Huston	149 (1991) 401
Roux, JN., see JL. Barrat	149 (1990) 197
Schweizer, K.S. and J.G. Curro, RISM theory of polymer liquids: analytical results for con-	
tinuum models of melts and alloys	149 (1990) 105
Scriven, L.E., see W.C. Kung	149 (1990) 141
Silence, S.M., S.R. Goates and K.A. Nelson, Impulsive stimulated scattering study of nor-	
mal and supercooled liquid triphenylphosphite	149 (1990) 233
Silinsh, E.A. and H. Inokuchi, On charge carrier photogeneration mechanisms in organic	
molecular crystals	149 (1991) 373

Stillinger, F.H., see J.G. Harris	149 (1990) 63
Tomkinson, J., see F. Fillaux	149 (1991) 459
Torell, L.M., see L. Börjesson	149 (1990) 209
Ullo, J. and S. Yip, Dynamical correlations in a binary metastable fluid	149 (1990) 221
Vakhtin, A.B. and A.K. Petrov, Absolute rate constants of $R + NO(+M) \rightarrow RNO(+M)$ reactions ($R = C_3F_7$, CF_3 , CH_3) at $T = 295$ K measured by time-resolved intracavity ab-	
sorption of He-Ne laser radiation	149 (1991) 427
Van der Auweraer, M., see B. Verschuere	149 (1991) 385
Verschuere, B., M. Van der Auweraer and F.C. De Schryver, A spectroscopic and photo-	
electrochemical investigation of xanthene dyes incorporated in Langmuir-Blodgett films	149 (1991) 385
Völkel, Th., see T. Butz	149 (1991) 437
Wilson, M.A. and D. Chandler, Molecular dynamics study of cyclohexane interconversion	149 (1990) 11
Yip, S., see J. Ullo	149 (1990) 221
Yu, L.T., see F. Fillaux	149 (1991) 459

List of Subjects

1 Methods

1.1	I heoretical

1.1.1 Group theory and algebras

1.1.2 Classical mechanics *

1.1.3 Quantized field theory

1.1.4 Many body and quasiparticle approaches

1.1.5 Coupling schemes and perturbative treatments *

1.1.6 Relativistic quantum mechanics

1.1.7 Transport quantum mechanics *

1.1.8 Equilibrium statistical mechanics *

1.1.9 Statistical mechanics of stationary states

1.1.10 Non-equilibrium thermodynamic and hydrodynamic

1.1.11 Ab initio schemes for stationary properties *

1.1.12 Computational and simulation methods *

1.1.13 Molecular dynamics and scattering theory *

1.2 Experimental

1.2.1 Magnetic resonances *

1.2.2 Cyclotron resonance

1.2.3 Microwave spectroscopy

1.2.4 Infrared spectroscopy

1.2.5 Raman spectroscopy *

1.2.6 Visible and UV spectroscopy *

1.2.7 Fluorescence spectroscopy *

1.2.8 Photoelectron and Auger spectroscopy

1.2.9 X-ray spectroscopy

1.2.10 Electron impact spectroscopy

1.2.11 Laser methods *

1.2.12 Picosecond spectroscopy *

1.2.13 Non-linear optical spectroscopy

1.2.14 Synchrotron spectroscopies

1.2.15 Coherent optical spectroscopy

1.2.16 Optical pumping

1.2.17 Multiple resonance spectroscopy

1.2.18 Optoacoustic spectroscopy

1.2.19 Atomic and molecular beam techniques *

1.2.20 Time-resolved experiments *

1.2.21 Mass spectrometry *

1.2.22 Radiolysis

1.2.23 Mössbauer spectroscopy

1.2.24 X-ray, electron and neutron diffraction

1.2.25 Neutron scattering *

1.2.26 Light scattering *

1.2.27 Field emission and field ionization

1.2.28 Measurement of macroscopic variables *

2 Objects

2.1 Bulk systems

2.1.1 Gases

2.1.2 Supersonic beams

2.1.3 Liquids neat *

2.1.4 Liquid mixtures and solutions *

2.1.5 Crystals

2.1.5.1 neat

2.1.5.2 mixed

2.1.6 Glasses *

2.1.7 Liquid crystals

2.1.8 Polymers *

2.1.9 Semiconductors

2.1.10 Metals and alloys

2.1.11 Thin films * 2.1.12 Surfaces *

2.1.13 Low-dimensional materials

2.1.14 Dielectrics

2.1.15 Plasmas

2.1.16 Biological systems *

2.2 Microscopic systems

2.2.1 Atoms

2.2.2 Molecules (neutral and ionic) *

2.2.2.1 diatomic *

2.2.2.2 small polyatomics *

2.2.2.3 aromatics

2.2.2.4 other large *

2.2.2.5 polymeric and biological *

2.2.3 Molecular aggregates *

2.2.3.1 dimers *

2.2.3.2 van der Waals molecules

2.2.3.3 clusters

2.2.3.4 complexes *

2.2.4 Free radicals (including hydronium and muonium) *

2.2.5 Quasiparticles (including excitons)

2.2.6 Defects and impurities

2.2.7 Ions and charge carriers *

^{*} Denotes subjects covered in this volume

3 Phenomena

Molecular structure *
Vibrations and rotations of molecules *
Electronic structure and states *
Electric and magnetic properties
Spin splittings
Optical activity
Molecular interactions *
Spectral bandshapes and intensities *
Coupling of electronic and nuclear motion *
Energy transfer processes *
Molecular photophysical processes *
Intramolecular dynamics *
radiationless transitions
vibrational energy redistribution (including vibrational dissociation) *
Luminescence spectra, yields and lifetimes *
Coherence loss processes
Non-linear responses (including optical)

3.16	Multiphoton phenomena
3.17	Reactions (including dissociation) *
3.17.1	gas phase *
3.17.2	condensed phase *
3.17.3	photochemical *
3.18	Tunnelling *
3.19	Electron transfer *
3.20	Positron annihilation
3.21	Ionization (including Rydberg states) *
3.22	Molecular motion (including diffusive)
3.23	Isotopic effects
3.24	Fluctuations and noise
3.25	Collective motion and excitations *
3.26	Surface effects and catalysis *
3.27	Thermodynamic and transport properties
3.28	Structure of solids and liquids *
3.29	Critical phenomena *
3.30	Phase transitions *

Subject Index to Volume 149

Methods

Theoretical

Classical mechanics	140 (1001) 275
Catastrophes and classical surface scattering, T.C.M. Horn, A.W. Kleyn and B. Dijkhuis	149 (1991) 275
Coupling schemes and perturbative treatments	
A photodynamical model for the excited state electron transfer of bianthryl and related molecules, T.J. Kang, W. Jarzeba, P.F. Barbara and T. Fonseca	149 (1990) 81
Transport quantum mechanics	
Picosecond fluorescence of simple photosynthetic membranes: evidence of spectral in-	
homogeneity and directed energy transfer, T. Pullerits and A. Freiberg	149 (1991) 409
Equilibrium statistical mechanics	
Fundamental aspects of chemical kinetics in condensed phases, J.G. Harris and	
F.H. Stillinger	149 (1990) 63
Phase equilibria of polymer-containing droplet microemulsions, J.T. Brooks and M.E. Cates RISM theory of polymer liquids: analytical results for continuum models of melts and al-	149 (1990) 97
loys, K.S. Schweizer and J.G. Curro	149 (1990) 105
Non-equilibrium thermodynamic and hydrodynamic theories	
Some comments on the α-relaxation dynamics of supercooled CaKNO ₃ , M. Fuchs, W. Götze	
and A. Latz	149 (1990) 185
Ab initio schemes for stationary properties	
An ab initio study of the hydrogen chloride dimer: the potential energy surface and the	
characterization of the stationary points, A. Karpfen, P.R. Bunker and P. Jensen Ab initio calculations of molecular and electronic structure of disilane. I. Molecular force	149 (1991) 299
field and vibrational spectrum, A. Márquez, J. Fernández Sanz, M. Gelizé and	140 (1001) 311
A. Dargelos	149 (1991) 311
Ab initio calculations of molecular and electronic structure of disilane. II. Photoelectron and vacuum UV electronic spectra, M. Gelizé, A. Dargelos, A. Márquez and	
J. Fernández Sanz	149 (1991) 319
Ab initio study of the cyclic, bridge-bonded and terminal-bonded isomers of P ₄ S, P.J. Bruna	147 (1771) 317
and S.D. Peyerimhoff	149 (1991) 325
Ab initio molecular treatment for single and double electron capture in the $He^{2+} + He(1s^2)$,
collision, M.C. Bacchus-Montabonel and M. Druetta	149 (1991) 333

Quantum simulation of non-separable vibrations and Franck-Condon overlap: ground state	
and low excited states, O. Heitzsch and W. Lorenz	149 (1991) 353
Computational and simulation methods	
Molecular dynamics study of cyclohexane interconversion, M.A. Wilson and D. Chandler	149 (1990) 11
Fundamental aspects of chemical kinetics in condensed phases, J.G. Harris and	140 (1000) (2
F.H. Stillinger	149 (1990) 63
A photodynamical model for the excited state electron transfer of bianthryl and related molecules, T.J. Kang, W. Jarzeba, P.F. Barbara and T. Fonseca	149 (1990) 81
Diffusion, viscosity and structural slowing down in soft sphere alloys near the kinetic glass	147 (1770) 01
transition, JL. Barrat, JN. Roux and JP. Hansen	149 (1990) 197
Dynamical correlations in a binary metastable fluid, J. Ullo and S. Yip	149 (1990) 221
Energy dependence study of vibrational inelastic collisions using the wave operator theory	
and an analysis of quantum flows in momentum space, G. Jolicard and G.D. Billing	149 (1991) 261
Quantum simulation of non-separable vibrations and Franck-Condon overlap: ground state	140 (1001) 252
and low excited states, O. Heitzsch and W. Lorenz	149 (1991) 353
A theoretical study of the effect of charge recombination on the transfer and trapping of excitation energy in photosynthesis, B. Källebring and Ö. Hansson	149 (1991) 361
excitation energy in photosynthesis, B. Rancoring and O. Hansson	149 (1991) 301
Molecular dynamics and scattering theory	
Energy dependence study of vibrational inelastic collisions using the wave operator theory	
and an analysis of quantum flows in momentum space, G. Jolicard and G.D. Billing	149 (1991) 261
Catastrophes and classical surface scattering, T.C.M. Horn, A.W. Kleyn and B. Dijkhuis	149 (1991) 275
Semiclassical roronic description of right-left scattering asymmetry of helicopter-oriented	140 (1001) 241
atoms, E.I. Dashevskaya, R. Düren and E.E. Nikitin	149 (1991) 341
On charge carrier photogeneration mechanisms in organic molecular crystals, E.A. Silinsh and H. Inokuchi	149 (1991) 373
Experimental	
Magnetic resonances	
NMR deuteron relaxation study of low-dimensional effects in molecular liquids in re-	
stricted geometries, G. Liu, M. Mackowiak, Y. Li and J. Jonas	149 (1990) 165
Raman spectroscopy	
Vibrational dephasing and frequency shifts for highly excited vibrations of methyl iodide in solution, A.B. Myers and F. Markel	149 (1990) 21
Visible and UV spectroscopy	
Some evidence of ultrafast H ₂ O ⁺ -water molecule reaction in femtosecond photoioniza-	
tion of pure liquid water: influence on geminate pair recombination dynamics,	
Y. Gauduel, S. Pommeret, A. Migus and A. Antonetti	149 (1990) 1
A spectroscopic and photo-electrochemical investigation of xanthene dyes incorporated in	
Langmuir-Blodgett films, B. Verschuere, M. Van der Auweraer and F.C. De Schryver	149 (1991) 385
Fluorescence spectroscopy	
A spectroscopic and photo-electrochemical investigation of xanthene dyes incorporated in	
Langmuir-Blodgett films, B. Verschuere, M. Van der Auweraer and F.C. De Schryver	149 (1991) 385

Photochemical bleaching of adsorbed rhodamine 6G as a probe of binding geometries on a fused silica surface, A.L. Huston and C.T. Reimann	149 (1991) 401
Laser methods	
Absolute rate constants of $R + NO(+M) \rightarrow RNO(+M)$ reactions ($R = C_3F_7$, CF_3 , CH_3) at $T = 295$ K measured by time-resolved intracavity absorption of He-Ne laser radiation, A.B. Vakhtin and A.K. Petrov	149 (1991) 427
Picosecond spectroscopy	
Ultrafast studies of chemical reactions in liquids: validity of gas phase vibrational relax- ation models and density dependence of bound electronic state lifetimes, M.E. Paige and C.B. Harris	149 (1990) 37
A photodynamical model for the excited state electron transfer of bianthryl and related molecules, T.J. Kang, W. Jarzeba, P.F. Barbara and T. Fonseca	149 (1990) 81
Impulsive stimulated scattering study of normal and supercooled liquid triphenylphos-	, , , , , , , , , , , , , , , , , , , ,
phite, S.M. Silence, S.R. Goates and K.A. Nelson Picosecond fluorescence of simple photosynthetic membranes: evidence of spectral in-	149 (1990) 233
homogeneity and directed energy transfer, T. Pullerits and A. Freiberg Vibrational dephasing of liquid carbondisulfide investigated by picosecond CARS,	149 (1991) 409
P. Aechtner and A. Laubereau	149 (1991) 419
Atomic and molecular beam techniques	
Semiclassical roronic description of right-left scattering asymmetry of helicopter-oriented atoms, E.I. Dashevskaya, R. Düren and E.E. Nikitin	149 (1991) 341
Triplet-state energy levels of CO ₂ ²⁺ , COS ²⁺ and CS ₂ ²⁺ , M.L. Langford, F.M. Harris, C.J. Reid, J.A. Ballantine and D.E. Parry	149 (1991) 445
Time-resolved experiments Some evidence of ultrafast H ₂ O ⁺ -water molecule reaction in femtosecond photoionization of pure liquid water: influence on geminate pair recombination dynamics,	
Y. Gauduel, S. Pommeret, A. Migus and A. Antonetti	149 (1990) 1
Ultrafast studies of chemical reactions in liquids: validity of gas phase vibrational relax- ation models and density dependence of bound electronic state lifetimes, M.E. Paige	
and C.B. Harris	149 (1990) 37
The mechanical spectra of β-relaxation and spontaneous densification effects in an amorphous polymer, E. Muzeau and G.P. Johari	149 (1990) 173
A theoretical study of the effect of charge recombination on the transfer and trapping of excitation energy in photosynthesis, B. Källebring and Ö. Hansson	149 (1991) 361
Photochemical bleaching of adsorbed rhodamine 6G as a probe of binding geometries on	149 (1991) 301
a fused silica surface, A.L. Huston and C.T. Reimann	149 (1991) 401
Nuclear quadrupole interaction of ^{199m} Hg mercaptides, T. Butz, Th. Völkel and O. Nuyken	149 (1991) 437
Mass spectrometry	
Triplet-state energy levels of CO ₂ ²⁺ , COS ²⁺ and CS ₂ ²⁺ , M.L. Langford, F.M. Harris, C.J. Reid, J.A. Ballantine and D.E. Parry	149 (1991) 445

149 (1991) 419

Neutron scattering	
The structure and thermodynamics of protein-SDS complexes in solution and the	mech-
anism of their transports in gel electrophoresis process, XH. Guo and SH. C.	hen 149 (1990) 129
Neutron and light scattering study of relaxation dynamics in a glass-forming fragi	le mo-
lecular liquid, L. Börjesson, M. Elmroth and L.M. Torell	149 (1990) 209
An inelastic neutron scattering study of the proton dynamics in γ-MnO ₂ , F. F.	Fillaux,
H. Ouboumour, J. Tomkinson and L.T. Yu	149 (1991) 459
Light scattering	
The structure and thermodynamics of protein–SDS complexes in solution and the	mech-
anism of their transports in gel electrophoresis process, XH. Guo and SH. Cl	
Neutron and light scattering study of relaxation dynamics in a glass-forming fragi	
lecular liquid, L. Börjesson, M. Elmroth and L.M. Torell	149 (1990) 209
•	(
Measurement of macroscopic variables	
Wetting transitions and surface critical phenomena at solid-fluid interfaces, W.C.	
L.E. Scriven and H.T. Davis	149 (1990) 141
Objects	
Objects	
Bulk systems	
Liquids neat	
Some evidence of ultrafast H ₂ O ⁺ -water molecule reaction in femtosecond photoi	oniza-
tion of pure liquid water: influence on geminate pair recombination dyna	amics,
Y. Gauduel, S. Pommeret, A. Migus and A. Antonetti	149 (1990) 1
Wetting transitions and surface critical phenomena at solid-fluid interfaces, W.C.	
L.E. Scriven and H.T. Davis	149 (1990) 141
NMR deuteron relaxation study of low-dimensional effects in molecular liquids	
stricted geometries, G. Liu, M. Mackowiak, Y. Li and J. Jonas	149 (1990) 165
Neutron and light scattering study of relaxation dynamics in a glass-forming fragil	
lecular liquid, L. Börjesson, M. Elmroth and L.M. Torell	149 (1990) 209
Impulsive stimulated scattering study of normal and supercooled liquid tripheny	149 (1990) 233
phite, S.M. Silence, S.R. Goates and K.A. Nelson Vibrational dephasing of liquid carbondisulfide investigated by picosecond C	
P. Aechtner and A. Laubereau	149 (1991) 419
1. Acciding and A. Laubereau	147 (1771) 417
Liquid mixtures and solutions	
Molecular dynamics study of cyclohexane interconversion, M.A. Wilson and D. Cha	
Vibrational dephasing and frequency shifts for highly excited vibrations of methyl i	
in solution, A.B. Myers and F. Markel	149 (1990) 21
Fundamental aspects of chemical kinetics in condensed phases, J.G. Harris	
F.H. Stillinger	149 (1990) 63
Phase equilibria of polymer-containing droplet microemulsions, J.T. Brooks and M.E.	
Dynamical correlations in a binary metastable fluid, J. Ullo and S. Yip	149 (1990) 221

Vibrational dephasing of liquid carbondisulfide investigated by picosecond CARS,

P. Aechtner and A. Laubereau

Glasses NMB deuteron relevation study of low dimensional effects in molecular liquids in re-	
NMR deuteron relaxation study of low-dimensional effects in molecular liquids in restricted geometries, G. Liu, M. Mackowiak, Y. Li and J. Jonas	149 (1990) 165
Some comments on the α-relaxation dynamics of supercooled CaKNO ₃ , M. Fuchs, W. Götze	(,
and A. Latz	149 (1990) 185
Dynamical correlations in a binary metastable fluid, J. Ullo and S. Yip	149 (1990) 221
Impulsive stimulated scattering study of normal and supercooled liquid triphenylphos-	149 (1990) 233
phite, S.M. Silence, S.R. Goates and K.A. Nelson	149 (1990) 233
Polymers	
Phase equilibria of polymer-containing droplet microemulsions, J.T. Brooks and M.E. Cates	149 (1990) 97
RISM theory of polymer liquids: analytical results for continuum models of melts and al-	
loys, K.S. Schweizer and J.G. Curro	149 (1990) 105
The mechanical spectra of β-relaxation and spontaneous densification effects in an amorphous polymer, E. Muzeau and G.P. Johari	149 (1990) 173
phous polymer, L. Muzeau and G.F. Johan	149 (1990) 173
Thin films	
Wetting transitions and surface critical phenomena at solid-fluid interfaces, W.C. Kung,	
L.E. Scriven and H.T. Davis	149 (1990) 141
A spectroscopic and photo-electrochemical investigation of xanthene dyes incorporated in Langmuir-Blodgett films, B. Verschuere, M. Van der Auweraer and F.C. De Schryver	149 (1991) 385
Langmun-Blodgett mins, B. Verschuere, W. Van der Auweraer and F.C. De Schryver	149 (1991) 363
Surfaces	
Catastrophes and classical surface scattering, T.C.M. Horn, A.W. Kleyn and B. Dijkhuis	149 (1991) 275
Biological systems	
A theoretical study of the effect of charge recombination on the transfer and trapping of	
excitation energy in photosynthesis, B. Källebring and Ö. Hansson	149 (1991) 361
Picosecond fluorescence of simple photosynthetic membranes: evidence of spectral in-	
homogeneity and directed energy transfer, T. Pullerits and A. Freiberg	149 (1991) 409
Microscopic systems	
Molecules (neutral and ionic)	
Ab initio calculations of molecular and electronic structure of disilane. I. Molecular force	
field and vibrational spectrum, A. Márquez, J. Fernández Sanz, M. Gelizé and A. Dargelos	149 (1991) 311
Semiclassical roronic description of right-left scattering asymmetry of helicopter-oriented	149 (1991) 311
atoms, E.I. Dashevskaya, R. Düren and E.E. Nikitin	149 (1991) 341
-diatomic	
Energy dependence study of vibrational inelastic collisions using the wave operator theory and an analysis of quantum flows in momentum space, G. Jolicard and G.D. Billing	149 (1991) 261
Ab initio molecular treatment for single and double electron capture in the $He^{2+} + He(1s^2)$	147 (1991) 201
collision, M.C. Bacchus-Montabonel and M. Druetta	149 (1991) 333
-small polyatomics	140 (1000)
Molecular dynamics study of cyclohexane interconversion, M.A. Wilson and D. Chandler	149 (1990) 11

149 (1991) 299

Vibrational dephasing and frequency shifts for highly excited vibrations of methyl iodic	
in solution, A.B. Myers and F. Markel	149 (1990) 21
Ab initio calculations of molecular and electronic structure of disilane. I. Molecular for	
field and vibrational spectrum, A. Márquez, J. Fernández Sanz, M. Gelizé ar	
A. Dargelos	149 (1991) 311
Ab initio calculations of molecular and electronic structure of disilane. II. Photoelectronic structure of disilane.	
and vacuum UV electronic spectra, M. Gelizé, A. Dargelos, A. Márquez ar	
J. Fernández Sanz	149 (1991) 319
Ab initio study of the cyclic, bridge-bonded and terminal-bonded isomers of P ₄ S, P.J. Brun	
and S.D. Peyerimhoff	149 (1991) 325
Nuclear quadrupole interaction of ^{199m} Hg mercaptides, T. Butz, Th. Völkel and O. Nuyke	en 149 (1991) 437
-other large	
Photochemical bleaching of adsorbed rhodamine 6G as a probe of binding geometries of	on
a fused silica surface, A.L. Huston and C.T. Reimann	149 (1991) 401
-polymeric and biological	
The structure and thermodynamics of protein-SDS complexes in solution and the med	
anism of their transports in gel electrophoresis process, XH. Guo and SH. Chen	149 (1990) 129
Nuclear quadrupole interaction of ^{199m} Hg mercaptides, T. Butz, Th. Völkel and O. Nuyke	en 149 (1991) 437
Molecular aggregates	
-dimers	
An ab initio study of the hydrogen chloride dimer: the potential energy surface and the	ne
characterization of the stationary points, A. Karpfen, P.R. Bunker and P. Jensen	149 (1991) 299
-complexes	
The structure and thermodynamics of protein-SDS complexes in solution and the mech	
anism of their transports in gel electrophoresis process, XH. Guo and SH. Chen	149 (1990) 129
Free radicals (including hydronium and muonium)	
Some evidence of ultrafast H ₂ O ⁺ -water molecule reaction in femtosecond photoioniza	a-
tion of pure liquid water: influence on geminate pair recombination dynamics	
Y. Gauduel, S. Pommeret, A. Migus and A. Antonetti	149 (1990) 1
Ions and charge carriers	
Triplet-state energy levels of CO_2^{2+} , COS^{2+} and CS_2^{2+} , M.L. Langford, F.M. Harris	
C.J. Reid, J.A. Ballantine and D.E. Parry	149 (1991) 445
An inelastic neutron scattering study of the proton dynamics in γ -MnO ₂ , F. Fillaux	
H. Ouboumour, J. Tomkinson and L.T. Yu	149 (1991) 459
Phenomena	
Molecular structure	

An ab initio study of the hydrogen chloride dimer: the potential energy surface and the

characterization of the stationary points, A. Karpfen, P.R. Bunker and P. Jensen

 Ab initio calculations of molecular and electronic structure of disilane. I. Molecular force field and vibrational spectrum, A. Márquez, J. Fernández Sanz, M. Gelizé and A. Dargelos Ab initio study of the cyclic, bridge-bonded and terminal-bonded isomers of P₄S, P.J. Bruna and S.D. Peyerimhoff Ab initio molecular treatment for single and double electron capture in the He²⁺ + He(1s²) collision, M.C. Bacchus-Montabonel and M. Druetta 	149 (1991) 311 149 (1991) 325 149 (1991) 333
Vibrations and rotations of molecules	
Vibrational dephasing and frequency shifts for highly excited vibrations of methyl iodide in solution, A.B. Myers and F. Markel	149 (1990) 21
An ab initio study of the hydrogen chloride dimer: the potential energy surface and the characterization of the stationary points, A. Karpfen, P.R. Bunker and P. Jensen Ab initio calculations of molecular and electronic structure of disilane. I. Molecular force	149 (1991) 299
field and vibrational spectrum, A. Márquez, J. Fernández Sanz, M. Gelizé and	
A. Dargelos Ab initio study of the cyclic, bridge-bonded and terminal-bonded isomers of P ₄ S, P.J. Bruna	149 (1991) 311
and S.D. Peyerimhoff	149 (1991) 325
Vibrational dephasing of liquid carbondisulfide investigated by picosecond CARS, P. Aechtner and A. Laubereau	149 (1991) 419
Electronic structure and states	
Ab initio calculations of molecular and electronic structure of disilane. II. Photoelectron and vacuum UV electronic spectra, M. Gelizé, A. Dargelos, A. Márquez and	
J. Fernández Sanz	149 (1991) 319
Triplet-state energy levels of CO ₂ ²⁺ , COS ²⁺ and CS ₂ ²⁺ , M.L. Langford, F.M. Harris, C.J. Reid, J.A. Ballantine and D.E. Parry	149 (1991) 445
Molecular interactions	
An ab initio study of the hydrogen chloride dimer: the potential energy surface and the characterization of the stationary points, A. Karpfen, P.R. Bunker and P. Jensen Semiclassical roronic description of right-left scattering asymmetry of helicopter-oriented	149 (1991) 299
atoms, E.I. Dashevskaya, R. Düren and E.E. Nikitin	149 (1991) 341
Spectral bandshapes and intensities	
Vibrational dephasing and frequency shifts for highly excited vibrations of methyl iodide	
in solution, A.B. Myers and F. Markel Ab initio calculations of molecular and electronic structure of disilane. II. Photoelectron and vacuum UV electronic spectra, M. Gelizé, A. Dargelos, A. Márquez and	149 (1990) 21
J. Fernández Sanz	149 (1991) 319
An inelastic neutron scattering study of the proton dynamics in γ-MnO ₂ , F. Fillaux, H. Ouboumour, J. Tomkinson and L.T. Yu	149 (1991) 459
Coupling of electronic and nuclear motion	
An inelastic neutron scattering study of the proton dynamics in γ-MnO ₂ , F. Fillaux,	140 (1001) 450
H. Ouboumour, J. Tomkinson and L.T. Yu	149 (1991) 459

Energy transfer processes	
Energy dependence study of vibrational inelastic collisions using the wave operator theory	
and an analysis of quantum flows in momentum space, G. Jolicard and G.D. Billing	149 (1991) 261
A theoretical study of the effect of charge recombination on the transfer and trapping of	
excitation energy in photosynthesis, B. Källebring and Ö. Hansson	149 (1991) 361
Picosecond fluorescence of simple photosynthetic membranes: evidence of spectral in-	
homogeneity and directed energy transfer, T. Pullerits and A. Freiberg	149 (1991) 409
Molecular photophysical processes	
On charge carrier photogeneration mechanisms in organic molecular crystals, E.A. Silinsh	
and H. Inokuchi	149 (1991) 373
A spectroscopic and photo-electrochemical investigation of xanthene dyes incorporated in	
Langmuir-Blodgett films, B. Verschuere, M. Van der Auweraer and F.C. De Schryver	149 (1991) 385
International and an about an income	
Intramolecular dynamics	
-vibrational energy redistribution (including vibrational dissociation)	
Molecular dynamics study of cyclohexane interconversion, M.A. Wilson and D. Chandler	149 (1990) 11
Luminescence spectra, yields and lifetimes	
Photochemical bleaching of adsorbed rhodamine 6G as a probe of binding geometries on	
a fused silica surface, A.L. Huston and C.T. Reimann	149 (1991) 401
Reactions (including dissociation)	
Teachons (including dissociation)	
-gas phase	
Absolute rate constants of $R + NO(+M) \rightarrow RNO(+M)$ reactions $(R = C_3F_7, CF_3, CH_3)$ at	
T=295 K measured by time-resolved intracavity absorption of He-Ne laser radiation,	
A.B. Vakhtin and A.K. Petrov	149 (1991) 427
-condensed phase	
Molecular dynamics study of cyclohexane interconversion, M.A. Wilson and D. Chandler	149 (1990) 11
Ultrafast studies of chemical reactions in liquids: validity of gas phase vibrational relax-	147 (1770) 11
ation models and density dependence of bound electronic state lifetimes, M.E. Paige	
and C.B. Harris	149 (1990) 37
Fundamental aspects of chemical kinetics in condensed phases, J.G. Harris and	()
F.H. Stillinger	149 (1990) 63
A photodynamical model for the excited state electron transfer of bianthryl and related	
molecules, T.J. Kang, W. Jarzeba, P.F. Barbara and T. Fonseca	149 (1990) 81
Quantum simulation of non-separable vibrations and Franck-Condon overlap: ground state	
and low excited states, O. Heitzsch and W. Lorenz	149 (1991) 353
-photochemical	
Some evidence of ultrafast H ₂ O ⁺ -water molecule reaction in femtosecond photoioniza-	
tion of pure liquid water: influence on geminate pair recombination dynamics,	
Y. Gauduel, S. Pommeret, A. Migus and A. Antonetti	149 (1990) 1
A spectroscopic and photo-electrochemical investigation of xanthene dyes incorporated in	,
Langmuir-Blodgett films, B. Verschuere, M. Van der Auweraer and F.C. De Schryver	149 (1991) 385

Tunnelling	
Quantum simulation of non-separable vibrations and Franck-Condon overlap: ground state and low excited states, O. Heitzsch and W. Lorenz	149 (1991) 353
Electron transfer	
Ultrafast studies of chemical reactions in liquids: validity of gas phase vibrational relax- ation models and density dependence of bound electronic state lifetimes, M.E. Paige and C.B. Harris	149 (1990) 37
A photodynamical model for the excited state electron transfer of bianthryl and related molecules, T.J. Kang, W. Jarzeba, P.F. Barbara and T. Fonseca	149 (1990) 81
A theoretical study of the effect of charge recombination on the transfer and trapping of excitation energy in photosynthesis, B. Källebring and Ö. Hansson	149 (1991) 361
Ionization (including Rydberg states) Ab initio calculations of molecular and electronic structure of disilane. II. Photoelectron and vacuum UV electronic spectra, M. Gelizé, A. Dargelos, A. Márquez and J. Fernández Sanz	149 (1991) 319
Ab initio study of the cyclic, bridge-bonded and terminal-bonded isomers of P ₄ S, P.J. Bruna and S.D. Peyerimhoff	149 (1991) 325
Molecular motion (including diffusive)	
NMR deuteron relaxation study of low-dimensional effects in molecular liquids in restricted geometries, G. Liu, M. Mackowiak, Y. Li and J. Jonas	149 (1990) 165
The mechanical spectra of β-relaxation and spontaneous densification effects in an amorphous polymer, E. Muzeau and G.P. Johari	149 (1990) 173
Diffusion, viscosity and structural slowing down in soft sphere alloys near the kinetic glass transition, JL. Barrat, JN. Roux and JP. Hansen	149 (1990) 197
Dynamical correlations in a binary metastable fluid, J. Ullo and S. Yip	149 (1990) 221
Collective motion and excitations	
Diffusion, viscosity and structural slowing down in soft sphere alloys near the kinetic glass transition, JL. Barrat, JN. Roux and JP. Hansen	149 (1990) 197
Neutron and light scattering study of relaxation dynamics in a glass-forming fragile molecular liquid, L. Börjesson, M. Elmroth and L.M. Torell	149 (1990) 209
Impulsive stimulated scattering study of normal and supercooled liquid triphenylphosphite, S.M. Silence, S.R. Goates and K.A. Nelson	149 (1990) 233
Surface effects and catalysis Catastrophes and classical surface scattering, T.C.M. Horn, A.W. Kleyn and B. Dijkhuis	149 (1991) 275
Photochemical bleaching of adsorbed rhodamine 6G as a probe of binding geometries on a fused silica surface, A.L. Huston and C.T. Reimann	149 (1991) 401
Thermodynamic and transport properties	
RISM theory of polymer liquids: analytical results for continuum models of melts and alloys, K.S. Schweizer and J.G. Curro The structure and thermodynamics of protein-SDS complexes in solution and the mech-	149 (1990) 105
anism of their transports in gel electrophoresis process, XH. Guo and SH. Chen	149 (1990) 129

Dynamical correlations in a binary metastable fluid, J. Ullo and S. Yip	149 (1990) 221
Structure of solids and liquids	
Fundamental aspects of chemical kinetics in condensed phases, J.G. Harris and F.H. Stillinger	149 (1990) 63
RISM theory of polymer liquids: analytical results for continuum models of melts and alloys, K.S. Schweizer and J.G. Curro	149 (1990) 105
Critical phenomena	
Wetting transitions and surface critical phenomena at solid-fluid interfaces, W.C. Kung, L.E. Scriven and H.T. Davis	149 (1990) 141
Neutron and light scattering study of relaxation dynamics in a glass-forming fragile mo-	140 (1000) 200
lecular liquid, L. Börjesson, M. Elmroth and L.M. Torell	149 (1990) 209
Phase transitions	
Phase equilibria of polymer-containing droplet microemulsions, J.T. Brooks and M.E. Cates	149 (1990) 97
RISM theory of polymer liquids: analytical results for continuum models of melts and alloys, K.S. Schweizer and J.G. Curro	149 (1990) 105
Wetting transitions and surface critical phenomena at solid-fluid interfaces, W.C. Kung,	140 (1000) 141
L.E. Scriven and H.T. Davis	149 (1990) 141

